

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventors: Ronald S. Karr and Anand A. Kekre
Assignee: Veritas Operating Corporation
Title: COHERENTLY SHARING ANY FORM OF INSTANT
SNAPSHOTS SEPARATELY FROM BASE VOLUMES
Application No.: 10/770,358 Filing Date: February 2, 2004
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Docket No.: VRT0133US Confirmation No.: 7650

Austin, Texas
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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**AMENDED APPEAL BRIEF IN RESPONSE TO NOTIFICATION OF
NON-COMPLIANT APPEAL BRIEF (37 CFR 41.37)**

Dear Sir:

On January 23, 2009, Appellant submitted an Appeal Brief in support of the Notice of Appeal filed on October 23, 2008, from the Examiner's final rejection of claims 1-6, 8-17 and 19-22. Appellant received a Notice of Non-Compliant Appeal Brief dated April 17, 2009 having a shortened statutory period set to expire May 17, 2009. The Notice indicates the previously filed Brief does not contain a concise statement of each ground of rejection presented for review (37 CFR 41.37(c)(1)(vi)). Appellant submits this amended brief to correct the deficiencies noted in the notice.

Appellant believes no fee is required. However, the Commissioner is hereby authorized to charge any fee that may be required to be paid as part of this appeal to Deposit Account No. 502306.

REAL PARTY IN INTEREST

As a result of the acquisition of Veritas Operating Company, which is named in the caption above, the real party in interest on this appeal is Symantec Corporation.

RELATED APPEALS AND INTERFERENCES

There are no appeals or interferences related to this application.

STATUS OF CLAIMS

Claims 1-6, 8-17 and 19-22 are pending in this application.

Claims 7 and 18 have been cancelled.

Claims 1-6, 8-17 and 19-22 stand rejected.

Appellant appeals the rejection of claims 1-6, 8-17 and 19-22

STATUS OF AMENDMENTS

No amendments to the claims have been submitted subsequent to the Final Office Action giving rise to this appeal.

SUMMARY OF CLAIMED SUBJECT MATTER

Independent Claim 1 sets forth a method. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 7, paragraph [0016], lines 9-12 of the present application, the method comprises creating a first storage object, wherein creating the first storage object comprises a computer system creating a first storage object description, wherein the first storage object description comprises data that relates the first storage object to first underlying storage objects or to first physical memory regions. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 9, paragraph [0022], lines 3-13 of the present application, the method further comprises creating a second storage object as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises the computer system creating a

second storage object description, wherein the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object.

As is described, *e.g.*, page 9, paragraph [0022], lines 13-14 of the present application, the method additionally comprises adding to the first storage object description data identifying the second storage object as a snapshot copy of the first storage object. As is described, *e.g.*, page 9, paragraph [0023], lines 2-6 of the present application, the method also comprises the computer system transmitting the first storage object description to a first computer system and the computer system transmitting the second storage object description to a second computer system.

Dependent Claim 4 sets forth the “method of claim 1 wherein,” as is described, *e.g.*, at page 8, paragraph [0018], lines 5-7 of the present application, “the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.”

Independent Claim 6 sets forth a method. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 9, paragraph [0022], lines 3-13 of the present application, the method comprises creating a second storage object, wherein creating the second storage object is created as a virtual snapshot copy of a first storage object, wherein creating the second storage object comprises a computer system creating a description of the second storage object. As is described, *e.g.*, page 9, paragraph [0022], lines 13-14 of the present application, the method additionally comprises adding data to a description for the first storage object to indicate that the first storage object is related to the second storage object. As is described, *e.g.*, page 9, paragraph [0023], lines 2-6 of the present application, the method further comprises the computer system transmitting the first storage object description to a first computer system, and the computer system transmitting the second storage object description to a second computer system.

Dependent Claim 10 sets forth the “method of claim 6 wherein,” as is described, *e.g.*, at page 8, paragraph [0018], lines 5-7 of the present application, “the second storage

object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.”

Independent Claim 12 sets forth a memory medium comprising instructions executable by a computer system, wherein the computer system implements a method in response to executing the instructions. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 7, paragraph [0016], lines 9-12 of the present application, the method comprises creating a first storage object, wherein creating the first storage object comprises creating a first storage object description, wherein the first storage object description comprises data that relates the first storage object to first underlying storage objects or to first physical memory regions. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 9, paragraph [0022], lines 3-13 of the present application, the method further comprises creating a second storage object as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises creating a second storage object description, wherein the second storage object description comprises data identifying the second storage object as a snapshot copy of the first data object.

As is described, *e.g.*, page 9, paragraph [0022], lines 13-14 of the present application, the method additionally comprises adding to the first storage object description data identifying the second storage object as a snapshot copy of the first storage object. As is described, *e.g.*, page 9, paragraph [0023], lines 2-6 of the present application, the method further comprises transmitting the first storage object description to a first computer system, and transmitting the second storage object description to a second computer system.

Dependent Claim 15 sets forth the “memory medium of claim 12 wherein,” as is described, *e.g.*, at page 8, paragraph [0018], lines 5-7 of the present application, “the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.”

Independent Claim 17 sets forth a memory medium comprising instructions executable by a computer system, wherein the computer system implements a method in response to executing the instructions. As is illustrated at, *e.g.*, at Figure 3, reference number 74 and described, *e.g.*, at page 9, paragraph [0022], lines 3-13 of the present application, the method comprises creating a second storage object, wherein creating the second storage object is created as a virtual snapshot copy of a first storage object, wherein creating the second storage object comprises creating a description of the second storage object. As is described, *e.g.*, page 9, paragraph [0022], lines 13-14 of the present application, the method additionally comprises adding data to a description for the first storage object to indicate that the first storage object is related to the second storage object. As is described, *e.g.*, page 9, paragraph [0023], lines 2-6 of the present application, the method also comprises transmitting the first storage object description to a first computer system, and transmitting the second storage object description to a second computer system.

Dependent Claim 21 sets forth the “memory medium of claim 17 wherein,” as is described, *e.g.*, at page 8, paragraph [0018], lines 5-7 of the present application, “the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.”

GROUND OF REJECTION TO BE REVIEWED ON APPEAL

- I. Rejection of Claims 1, 4, 6, 8-10, 12, 15-17 and 19-21 under 35 U.S.C. §102(b) as being anticipated by Blea *et al.*, U.S. Patent No. 6,212,531 (*Blea*).
 - a. Rejection of independent Claims 1, 6, 12, and 17 as being anticipated by *Blea*.
 - b. Rejection of dependent Claims 4, 10, 15, and 21 as being anticipated by *Blea*.

ARGUMENT

- I. The rejection of Claims 1, 4, 6, 8-10, 12, 15-17 and 19-21 under 35 U.S.C. §102(b) as being anticipated by *Blea* is unfounded and should be overturned.
 - a. The rejection of Claims 1, 6, 12, and 17 is unfounded and should be overturned.

Claims 1, 4, 6, 8-10, 12, 15-17 and 19-21 stand rejected under 35 U.S.C. §102(b) as being anticipated by *Blea et al.*, U.S. Patent No. 6,212,531 (*Blea*). Claims 2, 3, 5, 11, 13, 14, 16 and 22 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Blea* in view of *Berg*, U.S. Patent No. 6,222,558 (*Berg*).

Appellants respectfully traverse each of these rejections. Appellants respectfully submit that the argument presented below with respect to independent Claim 1 is generally applicable to Claims 2-6, 8-17, and 18-22, as independent Claims 6, 12, and 17 are generally rejected under the same logic employed against Claim 1, and Claims 2-5, 8-11, 13-16, and 19-22 depend from respective allowable independent claims, and are therefore allowable. Exemplary Claim 1 recites:

A method comprising:

creating a first storage object, wherein creating the first storage object comprises a computer system creating a first storage object description, wherein the first storage object description comprises data that relates the first storage object to first underlying storage objects or to first physical memory regions;

creating a second storage object as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises the computer system creating a second storage object description, wherein the second

**storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object;
adding to the first storage object description data identifying the second storage object as a snapshot copy of the first storage object;
the computer system transmitting the first storage object description to a first computer system, and;
the computer system transmitting the second storage object description to a second computer system.**

For the purposes of addressing the rejections asserted by the present Final Office Action, Appellants respectfully submit that independent Claims 6, 12, and 17 are rejected under logic materially similar to that logic employed against Claim 1.

Appellants respectfully submit that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” See *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Further, the identical invention must be shown in as complete detail as is contained in the . . . claim.” See *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Appellants respectfully submit that *Blea* does not anticipate independent Claim 1, because certain elements, specifically recited in Claim 1, are absent from *Blea*. Generally speaking, the Final Office Action argues a faulty mapping of elements that makes it impossible for the Final Office Action to argue a *prima facie* case of anticipation.

Specifically, independent claim 1 recites “creating a first storage object description, wherein the first storage object description comprises data that relates the first storage object to first underlying storage objects or to first physical memory regions.” The Final Office Action refers (Final Office Action of July 23, 2008 (“FOA”) p. 3, ¶1) to Figure 2A stating:

wherein the first storage object description comprises data that relates the first storage object [**“Pointers 36” for “Virtual Volume A 32, Figure 2A”**] to first underlying storage objects or to first physical storage memory regions [**“RAID 18”, Figure 2A”**],

See FOA, p.3, ¶1. From this quotation, the Final Office Action establishes a mapping between the claimed first storage object and Virtual Volume A 32 and a mapping between first underlying storage objects and RAID 18. The Final Office Action further identifies Pointers 36 as purportedly teaching a first storage object description.

In the next paragraph, the Final Office Action establishes an incomplete and logically inconsistent mapping. Independent Claim 1 recites “creating a second storage object as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises the computer system creating a second storage object description, **wherein the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object.**” The Final Office Action refers (p. 3, ¶2) to Figure 2B stating:

creating a second storage object [**“Virtual Volume B 34”, Figure 2B**] as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises the computer system creating a second storage object description, *wherein the second storage object description comprises data identifying the second storage object* [**“Raid 18” Figure 2B**] *as a snapshot copy* [**“snapshot copy”, Column 2, lines 26-29**] *of the first storage object* [**“Virtual Volume A 32”, Figure 2B**].

See FOA, p.3, ¶2 (*emphasis added*). From this quotation, the Final Office Action establishes (1) a mapping between the claimed second storage object and RAID 18, and (2) a mapping between claimed second storage object and Virtual Volume B 34. It is also noted above that the Final Office Action maps the claimed first underlying storage objects to RAID 18. Thus, the Final Office Action establishes (1) a mapping between the

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claimed first underlying storage objects and RAID 18, and (2) a mapping between the claimed second storage object and RAID 18. Logically fatal inconsistencies are thus exposed.

For RAID 18 to teach simultaneously both the recited first underlying storage objects and the recited second storage object requires that no distinction exist between the recited first underlying storage objects and the recited second storage object. Alternatively, the single second storage object is said to be two separate things, both RAID 18 and Virtual Volume B 34. Such a confused mapping impermissibly eliminates from Claim 1, at the very least, the recited distinction between the first underlying storage objects and the second storage object. Appellants respectfully submit that “[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art.” See MPEP 2143.03 citing *In re Wilson* 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970).

The mapping by the Final Office Action becomes yet muddier in the third paragraph. Independent Claim 1 recites “adding to the first storage object description data identifying the second storage object as a snapshot copy of the first storage object.” The Final Office Action refers, at p. 3, ¶3, to Figure 2B, stating:

adding to the first storage object description data identifying the second storage object [**“Pointers 38” directing to the underlying “RAID 18” of “Virtual Volume A 32”, Figure 2B**] as a snapshot copy of the first storage object [**Virtual Volume A 34, Figure 2B**]

See FOA, p.3, ¶3. The cited arrow (labeled Pointers 38) points to a relationship between Virtual Volume B 34 and “the underlying” RAID 18, while the language of the claim describes a relationship between the second storage object and the first storage object, not

the underlying storage objects. Clearly, the structural difference between that which is claimed and that which purportedly taught by *Blea* necessitates that *Blea* does not anticipate Appellants' Claim 1. For at least this reason, the rejection of Claim 1 is unfounded and should be overturned.

Appellants noted the previous non-final Office Action failed to establish a *prima facie* case of anticipation, because the previous non-final Office Action failed to point to any structure in Figure 2B as teaching the recited second storage object description. The Final Office Action responded by selecting Pointers 38 as providing a second storage object description, making the mapping proposed by the Final Office Action even more inconsistent.

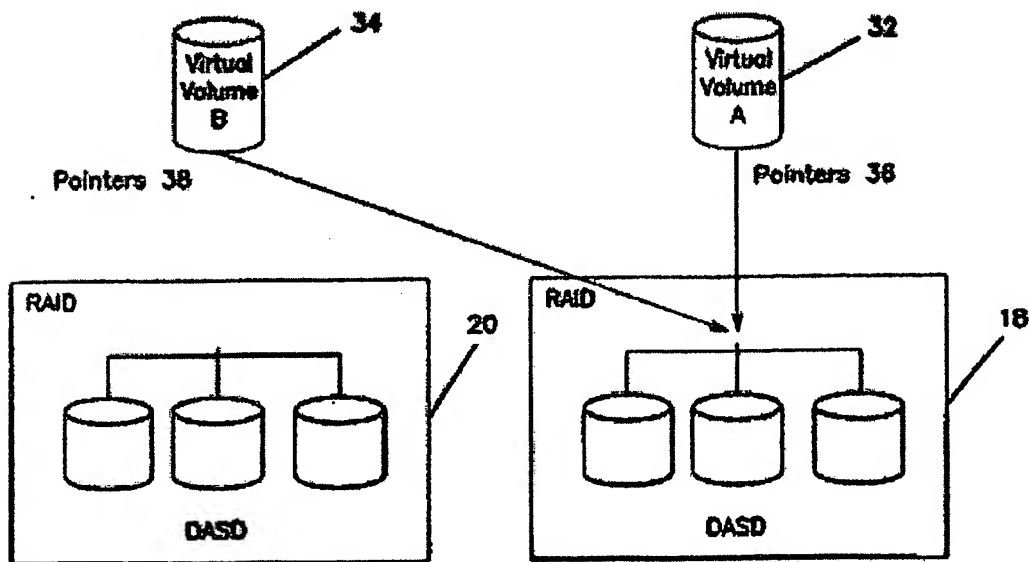
The Examiner has courteously attempted to answer this argument in the Final Office Action, stating:

Regarding Claim 1, the Appellant argues that the cited prior art fails to teach the second storage object description comprising "data identifying the second storage object as a snapshot copy of the first storage object." Specifically, the Appellant argues that the cited prior art does not make a distinction between the "first storage object" and the "second storage object". However, *Blea* clearly teaches a "virtual volume A 32" and a "virtual volume B 34" in Figure 2B, which correspond to the "first storage object" and the "second storage object" respectively. Further, the examiner reminds the Appellant that the examiner has never selected Pointers 36 as providing a second storage object description as the Appellant states on page 10 of the "Remarks". *Blea* maintains a relationship that treats the "virtual volume B34 as a snapshot copy of the "virtual volume A 32" in column 2, Lines 26-29, and such relationship being maintained within the system is interpreted as the "second storage object description", wherein the Pointers 38 (Figure 2B) directs to the "second storage object".

See FOA, p.6, ¶3. Appellants respectfully submit that the response iterates the underlying error in the mapping proposed by the Final Office Action. As stated above, the Final

Office Action maintains that “Blea maintains a relationship that treats the ‘virtual volume B34’ as a snapshot copy of the ‘virtual volume A 32’... [and] the ‘second storage object description’, wherein the Pointers 38 (Figure 2B) directs to the ‘second storage object.’” As a result of this faulty mapping, *Blea* cannot anticipate Appellants’ amended Claim 1. The Final Office Action establishes a mapping between “Pointers 38” and the limitation reciting that “the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object.” Simply stated, Pointers 38 do not identify a relationship between virtual volume B 34 (which the Final Office Action maps to “the second storage object”) and virtual volume A 32 (which the Final Office Action maps to “the first storage object”). Instead, Pointers 38 describe a relationship between virtual volume B 34 and RAID 18 (which the Final Office Action maps to the claimed first underlying storage objects).

This inconsistent mapping is exposed by Figure 2B:



Blea, FIG. 2B. Rather than illustrating the claimed, “the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object,” FIG. 2B illustrates that Pointers 38 are a line between RAID 18 (which the Final Office Action maps in one instance to the claimed first underlying storage objects) and virtual volume B 34 (which the Final Office Action maps to “the second storage object”).

Further, the cited text does not alleviate the deficiency of this mapping. The Final Office Action cites to column 2, Lines 26-29, which merely state that “Workspace on a work virtual volume is obtained to hold the snapshot copy of the source data being copied from a virtual volume.” This text does not resolve the underlying failure of *Blea* to teach, or even fairly suggest, the recited “the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object.”

The Examiner has courteously attempted to answer this argument in the Advisory Action, stating:

The “virtual volumes” in Figure 2 correspond to the claimed “storage objects”, wherein the “Virtual volume A 32” and the “virtual volume B 34” correspond to the “first storage object” and the “second storage object” respectively. Further, the “RAIDs” correspond to the claimed physical memory regions associated with the storage objects, wherein the “RAID 19” corresponds to the claimed “first physical memory regions”, and the “RAID 20” correspond to the claimed “snapshot copy”. Since each “RAID” is associated with a corresponding “Virtual Volume”, *Blea* clearly teaches the “first and second storage objects” (“Virtual Volumes”) each associated with the “physical memory regions” (“RAID”), wherein the “Virtual Volume 34 B” and its associated RAID is a snapshot copy of the “Virtual Volume A 32” and its associated RAID.

The Applicant further argues that *Blea* fails to teach the “data identifying the second storage object as a snapshot copy of the first storage object”. However, as stated in the above paragraph, the “Virtual Volume B 34” is a

snapshot copy of the "Virtual Volume A 32", wherein the original and the copy are physically stored in the corresponding "RAID". Since Blea identifies such relationship between the volumes and its associated physical RAIDs, Blea clearly anticipates the claimed invention.

See AA, p.2. Appellants respectfully submit that the response iterates the underlying error in the mapping proposed by the Final Office Action. FIG. 2B illustrates that Pointers 38 are a line between RAID 18 (which the Final Office Action maps in one instance to the claimed first underlying storage objects) and virtual volume B 34 (which the Final Office Action maps to "the second storage object"). No relation is established between the second storage object and the first storage object (which the Final Office Action maps to volume A 32. No citation to such a relation is offered. Appellants are unable to find such a relation within *Blea*. Without such a relation, *Blea* cannot anticipate the recited "the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object."

b. The rejection of Claims 4, 10, 15, and 21 is unfounded and should be overturned.

Appellants further respectfully submit that the rejection of Claim 4 displays an equal level of confusion. Appellants have recited, "the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions." See Claim 4. The Final Office Action states:

Claims 4 and 15 disclose, "information relating the second storage object to the second underlying storage object or second physical memory regions [each "DASD 18", Figure 2B]".

See FOA, p.4, ¶1 (emphasis in original). The Final Office Action has, as noted above, correlated the second storage object to Virtual Volume 34 B. Appellants are left to

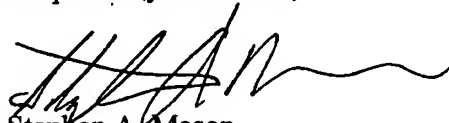
conclude from this laconic reference, that, consistent with the description above, that the Final Office Action intends to correlate one of the set of Pointers 38 and Pointers 36 to the recited "second storage object description." Confusingly, both Pointers 38 and Pointers 36 point to DASD 18, which the Final Office Action has identified as the first underlying storage region. See OA, pg. 3, line 2. Thus, instead of indicating the claimed relationship between "the second storage object to second underlying storage objects," Appellants are left to conclude that the Final Office Action means to point out a relationship between the second storage object to first underlying storage objects. Clearly, a relationship between the second storage object to first underlying storage objects does not anticipate the recitation in Claim 4 that "the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions." For at least this reason, the rejection of Claim 4 is unfounded and should be overturned. Similarly, the rejection of Claims 10, 15, and 21, which employs substantially similarly reasoning, is unfounded and should be overturned.

For at least these reasons, Appellants respectfully submit that *Blea* does not anticipate independent Claim 1 or 2-6, 8-17, and 18-22, as independent claims 6, 12, and 17 generally require the same disputed limitations of claim 1, and claims 2-5, 8-11, 13-16, and 19-22 depend from respective independent claims. Appellants therefore respectfully request that the present rejections be overturned and a notice of allowance be issued with respect to all pending Claims.

CONCLUSION

For the above reasons, Appellant respectfully submits that the rejection of pending Claims 1-6, 8-17 and 19-22 is unfounded. Accordingly, Appellant respectfully requests that the Board reverse the rejections of these claims.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. A. Mason', with a stylized flourish extending to the right.

Stephen A. Mason

Attorney for Appellants

Reg. No. 64,303

CAMPBELL STEPHENSON LLP

11401 Century Oaks Terrace

Building H, Suite 250

Austin, Texas 78758

Telephone: (512) 439-5098

Facsimile: (512) 439-5099

CLAIM APPENDIX

1. (Previously Presented) A method comprising:
creating a first storage object, wherein creating the first storage object comprises a computer system creating a first storage object description, wherein the first storage object description comprises data that relates the first storage object to first underlying storage objects or to first physical memory regions;
creating a second storage object as a virtual snapshot copy of the first storage object, wherein creating the second storage object comprises the computer system creating a second storage object description, wherein the second storage object description comprises data identifying the second storage object as a snapshot copy of the first storage object;
adding to the first storage object description data identifying the second storage object as a snapshot copy of the first storage object;
the computer system transmitting the first storage object description to a first computer system, and;
the computer system transmitting the second storage object description to a second computer system.
2. (Previously Presented) The method of claim 1 further comprising transmitting the first storage object description to the second computer system.
3. (Previously Presented) The method of claim 1 further comprising transmitting the second storage object description to the first computer system.
4. (Previously Presented) The method of claim 1 wherein the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.

5. (Previously Presented) The method of claim 1 further comprising:
modifying the first storage description, and;
transmitting the modified first storage description to the first and second computer
systems.
6. (Previously Presented) A method comprising:
creating a second storage object, wherein creating the second storage object is created as
a virtual snapshot copy of a first storage object, wherein creating the second
storage object comprises a computer system creating a description of the second
storage object;
adding data to a description for the first storage object to indicate that the first storage
object is related to the second storage object;
the computer system transmitting the first storage object description to a first computer
system, and;
the computer system transmitting the second storage object description to a second
computer system.
7. (Cancelled)
8. (Previously Presented) The method of claim 6 wherein the data added to the first
storage object description indicates that the second storage object is a snapshot copy to the first
storage object.
9. (Previously Presented) The method of claim 6 wherein the first storage object
description is transmitted to the first computer system after the data is added to the first storage
object description.
10. (Previously Presented) The method of claim 6 wherein the second storage object
description comprises data that relates the second storage object to second underlying storage
objects.

11. (Previously Presented) The method of claim 6 further comprising:
transmitting the first storage object description to the second computer system after the
data is added to the first storage object description to indicate that the first storage
object is related to the second storage object;
transmitting the second storage object description to the first computer system.

12. (Previously Presented) A memory medium comprising instructions executable by
a computer system, wherein the computer system implements a method in response to executing
the instructions, the method comprising:

creating a first storage object, wherein creating the first storage object comprises creating
a first storage object description, wherein the first storage object description
comprises data that relates the first storage object to first underlying storage
objects or to first physical memory regions;

creating a second storage object as a virtual snapshot copy of the first storage object,
wherein creating the second storage object comprises creating a second storage
object description, wherein the second storage object description comprises data
identifying the second storage object as a snapshot copy of the first data object;
adding to the first storage object description data identifying the second storage object as
a snapshot copy of the first storage object;

transmitting the first storage object description to a first computer system, and;
transmitting the second storage object description to a second computer system.

13. (Previously Presented) The memory medium of claim 12 wherein the method further comprises transmitting the first storage object description to the second computer system.

14. (Previously Presented) The memory medium of claim 12 wherein the method further comprises transmitting the second storage object description to the first computer system.

15. (Previously Presented) The memory medium of claim 12 wherein the second storage object description comprises information relating the second storage object to second underlying storage objects or second physical memory regions.

16. (Previously Presented) The memory medium of claim 12 wherein the method further comprises:
modifying the first storage description, and;
transmitting the modified first storage description to the first and second computer systems.

17. (Previously Presented) A memory medium comprising instructions executable by a computer system, wherein the computer system implements a method in response to executing the instructions, the method comprising:

creating a second storage object, wherein creating the second storage object is created as a virtual snapshot copy of a first storage object, wherein creating the second storage object comprises creating a description of the second storage object;
adding data to a description for the first storage object to indicate that the first storage object is related to the second storage object;
transmitting the first storage object description to a first computer system, and;
transmitting the second storage object description to a second computer system.

18. (Cancelled)

19. (Previously Presented) The memory medium of claim 17 wherein the data added to the first storage object description indicates that the second storage object is a snapshot copy to the first storage object.

20. (Previously Presented) The memory medium of claim 17 wherein the first storage object description is transmitted to the first computer system after the data is added to the first storage object description.

21. (Previously Presented) The memory medium of claim 17 wherein the second storage object description comprises data that relates the second storage object to second underlying storage objects.

22. (Previously Presented) The memory medium of claim 17 wherein the method further comprises:

transmitting the first storage object description to the second computer system
after the data is added to the first storage object description to indicate that
the first storage object is related to the second storage object;
transmitting the second storage object description to the first computer system.

EVIDENCE APPENDIX

None

RELATED PROCEEDINGS APPENDIX

None